CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 28 August 2003 (28.08.2003)

PCT

(10) International Publication Number WO 03/070124 A2

(51) International Patent Classification7:

A61F

- (21) International Application Number: PCT/US03/05107
- (22) International Filing Date: 20 February 2003 (20.02.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/359,021

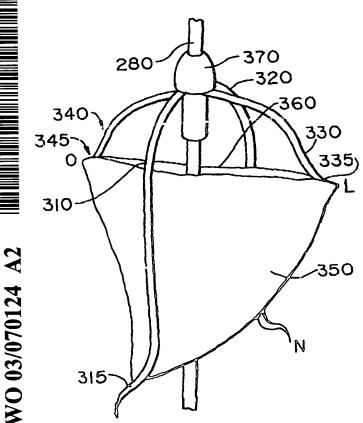
20 February 2002 (20.02.2002) US

- (71) Applicants and
- (72) Inventors: OSSE, Francisco, J. [BR/US]; 321 Koser, Iowa City, IA 52242 (US). THORPE, Patricia, E. [US/US]; Five Woodland Heights, Iowa City, IA 52240 (US).

- (74) Agents: KEOUGH, Steven, J. et al.; Fredrikson & Byron, P.A., 4000 Pillsbury Center, 200 South Sixth Street, Minneapolis, MN 55402 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI,

[Continued on next page]

(54) Title: VENOUS BI-VALVE



(57) Abstract: A replacement venous valve assembly having over-the-wire or other deployable configurations of struts and membranes.